



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,743	03/14/2008	Andrew Beck	GRA26 026US	6009
79172	7590	09/15/2010	EXAMINER	
Duane Morris LLP			LEE, JOHN J	
505 9th Street, N.W.				
Suite 1000			ART UNIT	PAPER NUMBER
Washington, DC 20004			2618	
			MAIL DATE	DELIVERY MODE
			09/15/2010	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/586,743	BECK ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	JOHN LEE	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 28 June 2010.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-22 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-22 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____ .

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1 - 22 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1 – 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bandeira et al (US 2002/0072329) in view of Schmutz (US 2001/0031621).

Regarding **claim 1**, Bandeira teaches a wireless communication system (Fig. 1). Bandeira teaches a plurality of base stations (see Figures 1, 2, paragraph 0005 - 0009, 0017, and 0038, where teaches the communication system and multiple base stations). Bandeira teaches at least one mobile appliance (see for example, Fig. 1, 2 and paragraph 0034 - 0035, where teaches the mobile stations), at least one repeater (see for example, Fig. 1, paragraphs 0020 - 0021, 0038 - 0042, 0054 - 0055, 0061, and 0083, where teaches the repeaters), and a control and management device (see for example, Fig. 1, 10, paragraphs 0082 - 0084, where teaches the processor and controlling device (managing device)), Bandeira teaches the at least one repeater further comprises a scanning receiver (see for example, paragraphs 0020, 0038, 0040 - 0042, 0073, 0078, and 0088 and Fig. 2

where teaches the repeater receiver and scanning), and an interface wherein the scanning receiver is adapted to measure attributes of reverse link channels and wherein the interface operably connects the at least one repeater and the control and management device (see for example, Figures 1, 6-10, paragraphs 0020, 0038 - 0042, 0073, and 0078 - 0088, where teaches transceiver adapted to receive and measure the received signal strength for providing a feedback signal to variable gain control).

Bandeira does not specifically teach the limitation “determining whether a signal has been served by the network device or at least one repeater based at least in part of the measured attributes”. However, Schmutz teaches the limitation “determining whether a signal has been served by the network device or at least one repeater based at least in part of the measured attributes” (pages 5, paragraphs 51 – pages 6, paragraphs 66 and Fig. 1, 6, where teaches the repeater can be determined from the list transmission using techniques based on specific information). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Bandeira’s system as taught by Schmutz, provide the motivation to achieve optimal communication for automatically configuring frequencies used by repeaters in wireless communication system.

Regarding **claim 6**, Bandeira and Schmutz teach all the limitation as discussed in claim 1. Furthermore, Bandeira further teaches a method of determining if a signal, from a source transmitter, received at a receiver has passed through the a network device (see Fig. 1, 2, paragraph 0005 – 0009, 0017, and 0038, where teaches the communication system with network and receiving signal from the transmitter). Bandeira teaches

scanning signals at the network device (Fig. 1, 2 ,paragraph 0005 - 0009, 0017 – 0020, 0038, 0040, 0042, 0073, 0078, 0088, where teaches the network and scanned signals). Bandeira teaches measuring an attribute of the scanned signals (see paragraphs 0020, 0038 - 0042, 0073 – 0088, where teaches scanning signals). Bandeira teaches communicating to a system manager the attributes of the scanned signals measured at the network device (see Fig. 1, 2, paragraph 0005 – 0009, 0017 – 0020, 0038 – 0042, 0064, 0068, 0073, 0078, and 0088, where teaches transceiver adapted to receive and measure the received signal strength for providing a feedback signal to variable gain control). Bandeira teaches determining which signals are served by the network device based at least in part of the measured attributes (see Fig. 1, 3, paragraph 0005 – 0009, 0017 – 0020, 0038 - 0042, 0064, 0068, 0073, 0078, and 0088, where teaches selecting signal serving by the network device based on feedback).

Regarding **claim 15**, Bandeira and Schmutz teach all the limitation as discussed in claims 1 and 6. Furthermore, Bandeira further teaches a method of determining if a mobile appliances signal received at a base station has been operated on by one or more repeaters (see Fig. 1, 3, 10, paragraph 0005 – 0009, 0017 – 0021, 0038 – 0042, 0054, 0061, 0083, where teaches the communication system with repeater and the base station received the signal). Bandeira teaches scanning reverse channel signal at the one or more repeaters (see Fig. 2, 3, 6, 0020, 0038 – 0042, 0073, 0078, and 0088, where teaches scanning signals at repeater). Bandeira teaches measuring one or more attributes of the scanned reverse channel signals (see Fig. 2, 3, 6, 0020, 0038 – 0042, 0073, 0078, 0082 – 0084, and 0088, where teaches transceiver adapted to receive and measure the received

signal strength for providing a feedback signal to variable gain control). Bandeira teaches transmitting to a system manager over a link the attributes of the scanned reverse channel signals and channel information of the reverse channel signals (see Fig. 2, 3, 6, 0020, 0038 – 0042, 0073, 0078, 0082 – 0084, and 0088, where teaches the processor and controlling device (managing device) performs received signal strength and feedback). Bandeira teaches determining the proximity of the mobile appliance to the one or more repeaters based at least in part by the measured attributes (see Fig. 1, 6, 10, paragraph 0005 – 0009, 0017 – 0020, 0038 – 0042, 0064, 0068, 0073, 0078, and 0088, where teaches selecting signal serving as a repeater by the network device based on feedback). Bandeira teaches determining which reverse channel signals are served by the one or more repeaters based at least in part by the proximity of the mobile appliance to the one or more repeaters (see Fig. 1, 6, 10, paragraph 0005 – 0009, 0017 – 0021, 0038 – 0042, 0054 – 0055, 0061 – 0068, 0080, 0083, 0085, 0088, and 0090).

Bandeira does not specifically teach the limitation “determining which reverse channel signals are served by the one or more repeaters based at least in part by the proximity of the mobile appliance to the one or more repeaters”. However, Schmutz teaches the limitation “determining which reverse channel signals are served by the one or more repeaters based at least in part by the proximity of the mobile appliance (neighbor lists) to the one or more repeaters” (pages 5, paragraphs 51 – pages 6, paragraphs 66 and Fig. 1, 6, where teaches the repeater can be determined from the list transmission using techniques based on specific information including neighbor lists). It would have been obvious to one having ordinary skill in the art at the time the invention

was made to modify the Bandeira's system as taught by Schmutz, provide the motivation to achieve optimal communication for automatically configuring frequencies used by repeaters in wireless communication system.

Regarding **claims 2, 8, and 16**, Bandeira and Schmutz teach all the limitations of claims 1, 6, 15. Furthermore, Bandeira further teaches the attributes are selected from group comprise signal characteristics (see Fig. 1, 6, 10, paragraph 0005 – 0009, 0064, 0068, and 0078), signal strength and band of received power (see Fig. 1, 6, 10, paragraph 0005 – 0009, 0064, 0068, and 0078).

Regarding **claim 3**, Bandeira and Schmutz teach all the limitations of claim 1. Furthermore, Bandeira further teaches the scanning receiver is connected to an antenna of the at least one repeater (see Fig. 1, 6, paragraphs 0020, 0038 – 0042, 0073, 0078, and 0088, scanning signals).

Regarding **claim 4**, Bandeira and Schmutz teach all the limitations of claim 1. Furthermore, Bandeira further teaches the at least one repeater and control and management device are connected via a wireless channel of one of the plurality of base stations (see Fig. 1, 2, 6, paragraphs 0005, 0008, 0017, 0020, 0021, 0045, 0046, 0076, 0077, 0082, 0084).

Regarding **claim 5**, Bandeira and Schmutz teach all the limitations of claim 1. Furthermore, Bandeira further teaches the control and management device is connected to mobile switching center (see Fig. 1, 2, 6, paragraphs 0005, 0008, 0017, 0020, 0021, 0045, 0046, 0076, 0077, 0082, 0084, where teaches controller connections and switching).

Regarding **claim 7**, Bandeira and Schmutz teach all the limitations as discussed in claim 6. Furthermore, Bandeira further teaches the attributes reflect a proximity to the network device (see Fig. 1, 6, 10, paragraph 0005 – 0009, 0017 – 0020, 0038 – 0042, 0073, 0064, 0068, 0078, and 0088).

Regarding **claim 9**, Bandeira and Schmutz teach all the limitations as discussed in claim 6. Furthermore, Bandeira further teaches the network device is a repeater (see Fig. 1, paragraphs 0020, 0021, 0038 - 0042, 0054 – 0055, 0061, and 0083, where teaches the repeaters).

Regarding **claim 10**, Bandeira and Schmutz teach all the limitations as discussed in claim 6. Furthermore, Bandeira further teaches the network device is a micro station (see Fig. 1, 6, 10, paragraphs 0005 – 0009, 0017 – 0021, 0038 – 0042, 0054, 0055, 0061, and 0083, where teaches the network station).

Regarding **claim 11**, Bandeira and Schmutz teach all the limitations as discussed in claim 6. Furthermore, Bandeira further teaches identifiers of the reverse channel are communicated along with the attributes (see Fig. 1, 6, 10, paragraphs 0020, 0038, 0040, 0042, 0073, 0078, 0082, 0084, 0088).

Regarding **claim 12**, Bandeira and Schmutz teach all the limitations as discussed in claim 6. Furthermore, Bandeira further teaches the attributes are communicated to the system manager via the receiver (see Fig. 1, 6, 10, paragraph 0005 – 0009, 0017 – 0020, 0038 – 0042, 0064, 0068, 0073, 0078, and 0088).

**Regarding claims 13 and 19**, Bandeira and Schmutz teach all the limitations as discussed in claims 6 and 15. Furthermore, Bandeira further teaches the attributes are

compared to a threshold at the system manager (see Fig. 1, 6, 10, paragraph 0005 – 0009, 0017 – 0020, 0038 – 0042, 0073, 0064, 0068, 0078, and 0088).

Regarding **claims 14 and 20**, Bandeira and Schmutz teach all the limitations as discussed in claims 6, 11, and 15. Furthermore, Bandeira further teaches the identifiers of the reverse channel are translated into mobile appliance identity information with information provided from a mobile switching center (see Fig. 1, 6, 10, paragraphs 0020, 0038 – 0042, 0073, 0078, 0082, 0084, 0088).

Regarding **claim 17**, Bandeira and Schmutz teach all the limitations as discussed in claims 6, 11, and 15. Furthermore, Bandeira further teaches the link is a wireless communication channel (see Fig. 1, 6, 10, paragraph 0005 – 0009, 0017 – 0021, 0038 – 0042, 0054, 0061, 0083, where teaches the communication system with repeater and the base station received signal).

Regarding **claim 18**, Bandeira and Schmutz teach all the limitations as discussed in claims 6, 11, and 15. Furthermore, Bandeira further teaches the link is a wireline (Figures 1, 2, paragraph 0005 - 0009, 0017, and 0038, where teaches wired link).

Regarding **claim 21**, Bandeira and Schmutz teach all the limitations as discussed in claims 6 and 15.

Regarding **claim 22**, Bandeira and Schmutz teach all the limitations as discussed in claims 1, 6 and 15.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nisbet (US 2002/0155839) discloses Allocating of Control Channel in a Communication System.

Information regarding...Patent Application Information Retrieval (PAIR) system... at 866-217-9197 (toll-free)."

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231  
Or P.O. Box 1450  
Alexandria VA 22313

or faxed (571) 273-8300, (for formal communications intended for entry)  
Or: (703) 308-6606 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John J. Lee** whose telephone number is **(571) 272-7880**. He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00 pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, **Nay Maung**, can be reached on **(571) 272-7882**. Any inquiry of a general nature or relating to

the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

J.L  
September 10, 2010

John J Lee

/JOHN LEE/  
Primary Examiner, Art Unit 2618